

**Amendments to the Specification:**

Please replace paragraph [0068] with the following paragraph.

[0068] FIGs. ~~[[20A-20D]]~~ 20A-20C illustrate the method by which the range gate is selected by the system controller of FIG. 11. FIGs. ~~[[20A-20D]]~~ 20A-20C are a flowchart diagram that illustrates how the range gate is set. Once the system is installed within an area, a number of parameters must be set. These parameters may be measured and entered into the system through a computer keyboard. At block 300, object height, sensor height, focal length, sensor depression angle, the video camera chip vertical active dimension and the number of the video lines in the chip are all entered into the system. Next, a nominal maximum range is selected at block 302. This range will depend upon the dimensions of the area to be monitored. At block 304, the angle  $\Phi_L$  is computed, which is the angle between video line-of-sight and a local vertical reference (which is  $90^\circ$  to local horizontal). At block 306, the angle is computed between the sensor line-of-sight and the line-of-sight that will be seen by a pixel line at the maximum range. Note that the identity of this pixel line is not yet known; it will be computed. Next, the linear distance or displacement from the center of the chip to the line which sees out to the maximum range is computed in block 308. From this computation, the line number can then be computed in block 310. Once the line number is known, the vertical dimension of the pixel can be computed as shown in block 312. From this information, the angular field of view of any particular line can be determined in block 314. Referring to FIG. 20C, now the ranges at the horizontal reference intercepts of any particular line may be computed. These parameters are shown graphically in FIG. 23. In block 318, the system next selects a line number for intrusion detection and in block 320, with the information previously known for each line number, the maximum dimension of the range gate is set.